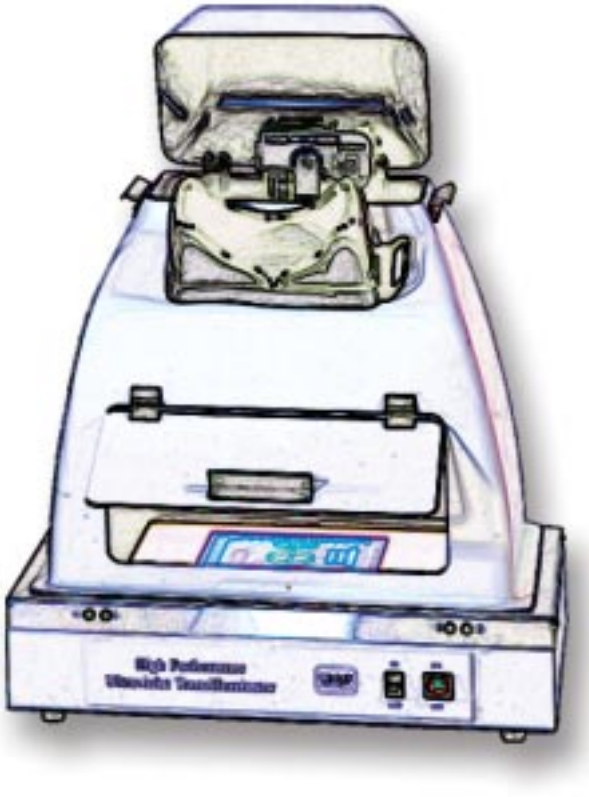
DigiDoc-It® Imaging System

Set-Up and Operating Instructions



IMPORTANT:
Please read these instructions before operating your
UVP System to familiarize yourself with operation procedures.

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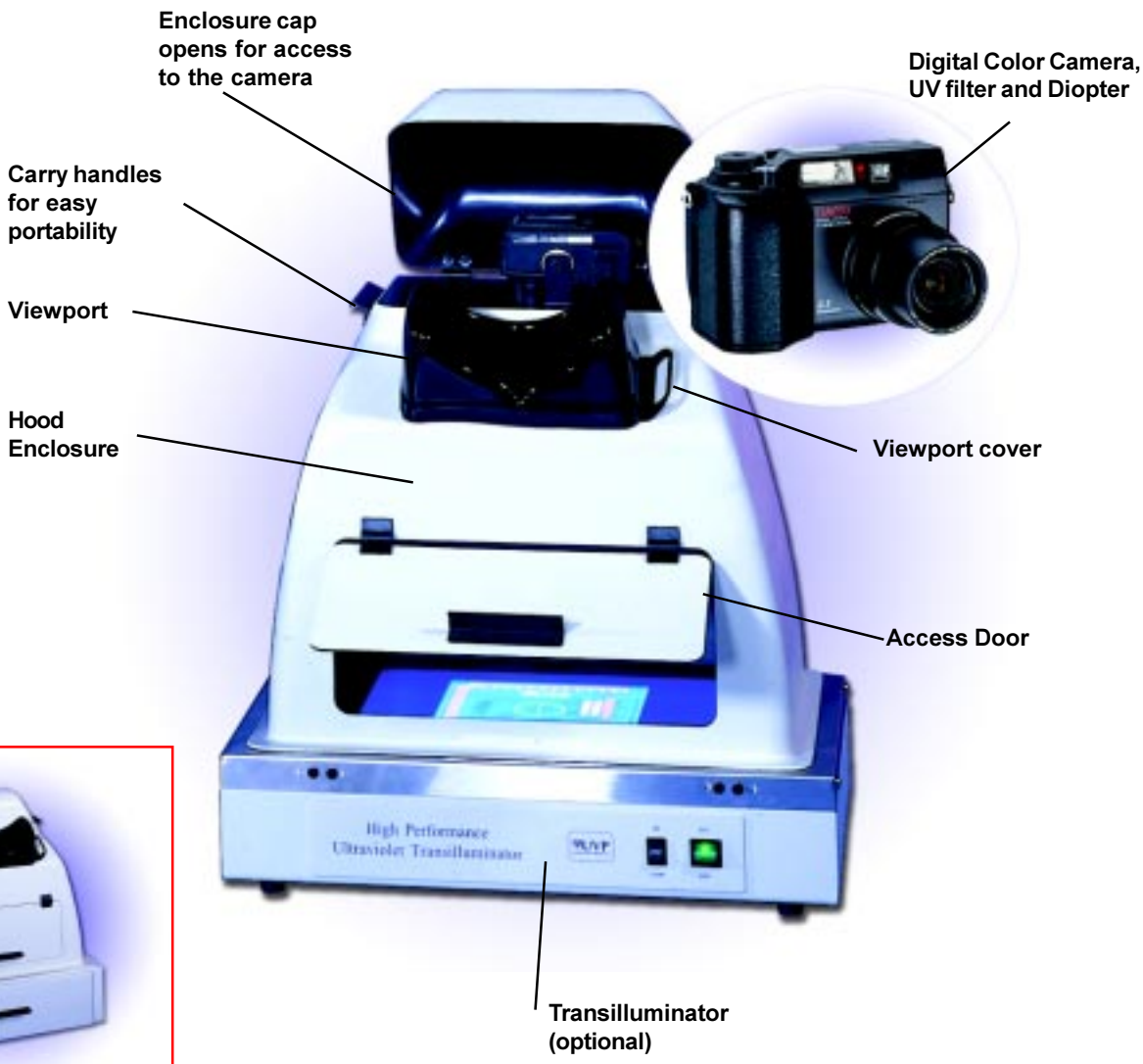
Hardware Components

The DigiDoc-It System is designed to fit over any of UVP's High Performance UV Transilluminators or for use with a Benchtop UV Transilluminator and drawer combination. The basic system combines:

- Hood Enclosure
- Digital Color Camera, Filter and Diopter
- Doc-It Acquisition Software (refer to the separate manual for installation and user instructions)

System components may include a transilluminator or drawer assembly. Transilluminator instructions are provided in a separate manual.



DigiDoc-It with optional drawer assembly accommodates a Benchtop Transilluminator.

Hood Enclosure

The DigiDoc-It hood enclosure includes a cap for protecting the camera from laboratory elements. The soft rubber viewport allows researchers to view samples prior to capturing images. The slide closure under the viewport minimizes ambient light when taking pictures. The lightweight door provides access to the enclosure interior for placement of samples on the transilluminator surface.

The DigiDoc-It drawer fits under the hood enclosure and accommodates a compact Benchtop UV Transilluminator.

Camera, Diopter & UV Filter

The digital color camera (camera style pictured may differ from purchased camera) includes built-in optical zoom lens. A UV filter and close-up diopter are connected to the lens at UVP's factory.

The orange-colored UV blocking band pass filter is used to absorb UV and IR radiation from the transilluminator and to enhance the orange/pink bands generated by ethidium bromide stained gels. The filter, threaded onto the front of the zoom lens, can be removed when imaging non-fluorescent media (protein gels, colony plates, etc.) in order to produce brighter images.

The zoom lens is also fitted with a close-up diopter. It is for focusing on objects at the focus length of the system.

UV Blocking Filter

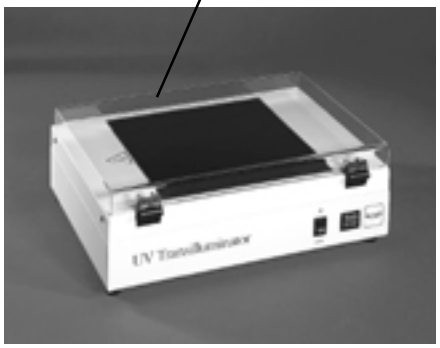
Doc-It Acquisition Software

The Doc-It software loads onto your existing computer. The software controls camera's acquisition functions as well as enhancement and anlaysis features. For information on installation and use of the software, refer to the Doc-It Acquisition and 1D Analysis Software Manual.

Transilluminator

An ultraviolet transilluminator may be shipped with your system. The transilluminator includes an ultraviolet blocking cover; however, the cover should be removed when the transilluminator is used with the system.

Clear UV Blocking Cover



Transilluminator

System Set-Up

- Hood Enclosure
- Digital Color Camera, Filter and Diopter
- Doc-It Acquisition Software (refer to separate manual for instructions)
- Transilluminator (optional equipment)

DO NOT ATTEMPT TO CONNECT ANY WIRING WHILE THE EQUIPMENT IS CONNECTED TO ANY POWER SUPPLY.

CAUTION

Do not install the system in places with high moisture, dust or high temperature. Do not use any oil or petroleum based cleaner for the cabinet. Use only mild soap or detergent solution for cleaning. Ensure that the system is turned OFF during cleaning. Keep the equipment away from motors or other large magnetic equipment apparatus.

Place the Hood Over Transilluminator

The Hood Enclosure can be used with a High Performance UV Transilluminator or Benchtop Transilluminator and drawer assembly.

With High Performance Transilluminator

When using a High Performance UV Transilluminator, remove the UV blocking clear cover from the Transilluminator.

DigiDoc-It with High Performance Transilluminator

Caution: All UVP Benchtop Transilluminators are powerful sources of UV radiation that will cause damage to unprotected eyes and skin. Before operating any unit, be sure all personnel in the area are properly protected. UV Blocking Eyewear should be worn as well. Refer to Accessories for UV Blocking Eyewear.

Connect the power cord to the back of the transilluminator and connect the plug to a power source. Place the transilluminator so the switch is positioned facing the user. Place the Hood Enclosure on top of the Transilluminator surface so that the filter glass is covered.

With Benchtop Transilluminator and Drawer

When using the drawer and Benchtop Transilluminator with the DigiDoc-It System, a +2 diopter is required for accurate camera focus. Your system may have a diopter attached to the camera lens if you are using the system with a larger High Performance Transilluminator and no drawer. The following instructions are for replacing the diopter.

DigiDoc-It with drawer

Diopter Installation

Check the camera lens for an existing diopter and UV filter. If installed, remove both. The diopter shipped with the drawer has two diopters assembled at the UVP factory. Screw the diopter assembly onto the camera lens. Replace the UV filter.

Drawer Installation

Place the Benchtop Transilluminator into the drawer. Connect the power cord to the back of the transilluminator and push the plug through the access hole in the back of the drawer. Connect the plug to the power source. Access to the transilluminator switch is via the access port on the front of the drawer.

Place the DigiDoc-it hood enclosure over the drawer.

Camera Set-Up

You may remove the camera from the hood to snap images of subjects other than gels or samples. You can easily replace the camera in the hood as follows:

Insert the Camera into the Hood

1. Open the camera cap on top of the darkroom hood.
2. Position the camera on top of the darkroom hood so that the camera's lens fits into the hole on the darkroom hood.
3. Insert the knob screw through the camera's mounting bracket and turn the knob screw counter-clockwise to tighten it into the camera's tripod mounting threads.
4. Plug the camera's power cable into the input power receptacle on the camera.
5. Make sure the cables pass through the notched hole in the camera cap provided for them.

6. Close and secure the camera cap on the dark-room hood.
7. Plug the camera's power supply into a wall outlet or surge-protector receptacle.

To remove the camera, reverse the steps above.

Note: If you capture images using the camera outside the hood, you will need to calibrate the images manually in order to use the Doc-It Software rulers. See Changing Sample Width in the Software Manual for more details.

System Operation

Camera Operation

If you will not be using the camera for an extended period, it is best to turn it off:

To Turn the Camera Off or On

1. Open the camera cap on top of the darkroom hood.
2. Set the camera mode dial to **Off** to turn it off or to **A/S/M** to turn it on.
3. Close and secure the camera cap on the darkroom hood.

If the camera is off when you start Doc-It, you will get a message stating that the application cannot find any cameras. To remedy this, turn the camera on and click **Retry**.

When you exit Doc-It, you will be reminded to turn the camera off to save battery life.

Loading Gels into the Darkroom Hood

Slides are loaded into the Darkroom Hood through the Sample Loading door in the front. You can examine the slide through the Sample Viewing window.

To Load a Gel into the Darkroom Hood

1. Turn off the UV Transilluminator.

1. Open the Sample Loading door in the front of the Darkroom Hood.
2. Place the sample to be imaged in the center of the light source filter glass.
3. Close the Sample Loading door in the front of the Darkroom Hood.
4. Open the camera protection hood on top of the Darkroom Hood and turn on the digital camera by turning the camera mode dial to **A/S/M**.

Sample Loading Door

5. Close and secure the camera protection hood on the top of Darkroom Hood.
6. Turn on the light source.
7. Capture the image using appropriate software exposure settings.
8. Turn off the light source.

Note: It is important to minimize the light source exposure to the sample. Turn off the light source as soon as you finish capturing the image.

To View a Sample Prior to Capture

1. Open the sample viewing window on the hood by sliding the protective plate to the right.

2. After you have verified that the sample is correctly loaded, close the sample viewing window. Otherwise, light from the viewing window will interfere with the capturing process.

Replacement Parts and Accessories

Accessories are available for use with the DigiDoc-It Imaging Systems. Contact UVP's offices at the telephone numbers below for replacement parts for DigiDoc-It equipment. For transilluminator replacement parts, refer to the separate manual for the transilluminators included with your shipment.

Thermal Printers

	Part Numbers
Thermal Printer, Digital (115/230V)	89-0069-06
Thermal Paper, 4 rolls (800 images)	89-0038-01
Thermal paper, 16 rolls (3200 images)	89-0038-04
Thermal Paper, 40 rolls (8000 images)	89-0038-05

Converter Plates

	Part Numbers
UV to White Light Converter Plate (21x26cm)	38-0191-01
Visi-Blue Converter Plate (21x26cm)	38-0200-01

Camera Filter

Camera Filter for SYBR Green and EGFP	38-0187-01

Technical Assistance

UVP offers technical support for all of its products. If you have any questions about the product's use, operation or repair, please call or fax UVP Customer Service or Technical Support at the following:

UVP, Inc. In the US: 2066 W. 11th Street, Upland, CA 91786
Toll free (800) 452-6788 or (909) 946-3197, fax: (909) 946-3597
uvp@uvp.com or techsupport@uvp.com

Ultra-Violet Products Ltd. In Europe/UK:
Call +44(0)1223-420022 or fax: +44(0)1223-420561
Unit 1, Trinity Hall Farm Estate, Nuffield Road, Cambridge CB4 1TG UK
uvp@uvp.co.uk

NOTE: A **Returned Goods Authorization (RGA) number** must be obtained from UVP's Customer Service Department prior to returning any product to UVP.

Doc-It is a registered trademark of UVP, Inc. DigiDoc-It are trademarks of UVP, Inc.

Other products from UVP include:

LabWorks Image Analysis Software

BioImaging Systems

Crosslinkers

Hybridization Ovens

Ultraviolet Lamps and Light Sources

UV Viewing Cabinets

UV Intensity Meters

Multi-Sense Meters